

**CRYOGEN-FREE HIGH TEMPERATURE
SUPERCONDUCTING MAGNET WITH
THERMAL RESERVOIR**

ABSTRACT OF THE DISCLOSURE

A cryogen free superconducting magnet assembly having a high T_c superconducting magnet and a thermal reservoir in thermal contact with the high T_c superconducting magnet. A method of cooling a cryogen free superconducting magnet assembly and an MRI system having cryogen free superconducting magnet assemblies.